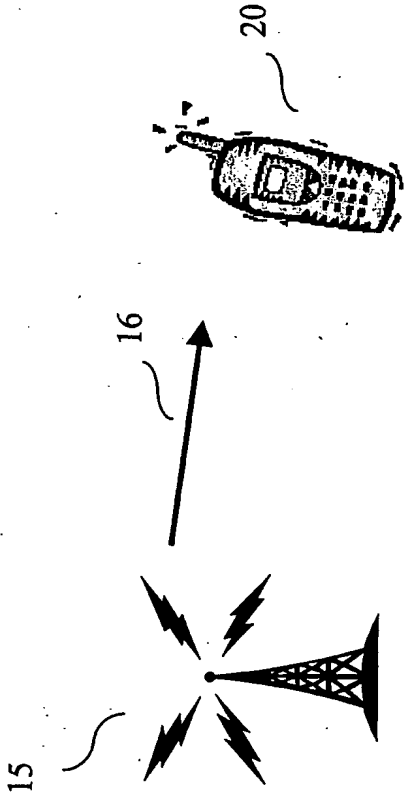


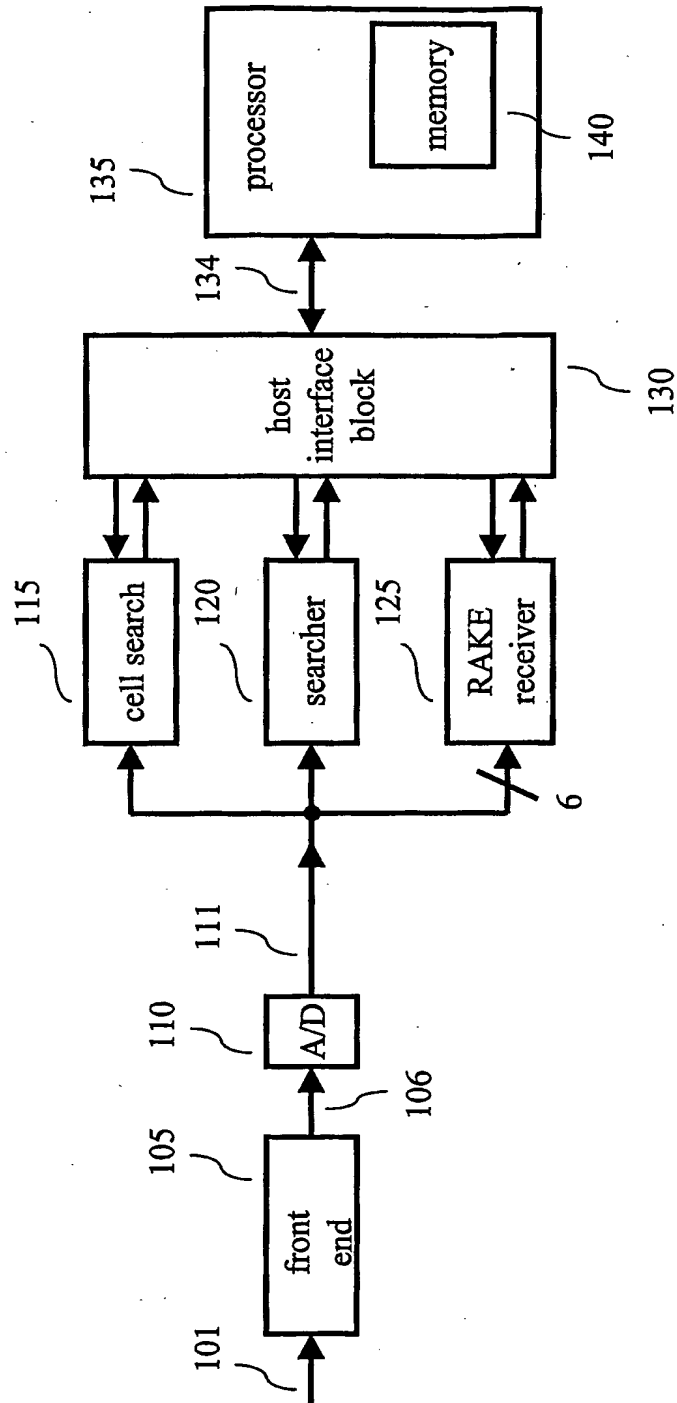
FIG. 1



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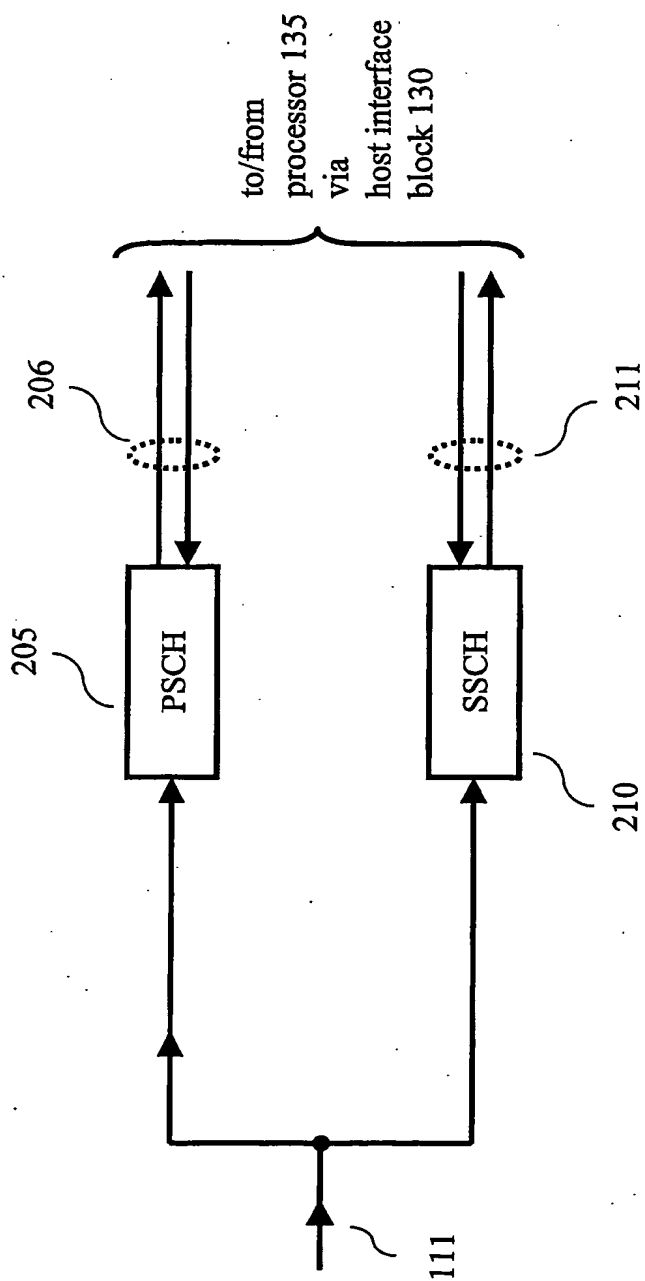
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FIG. 2



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FIG. 3



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FIG. 4

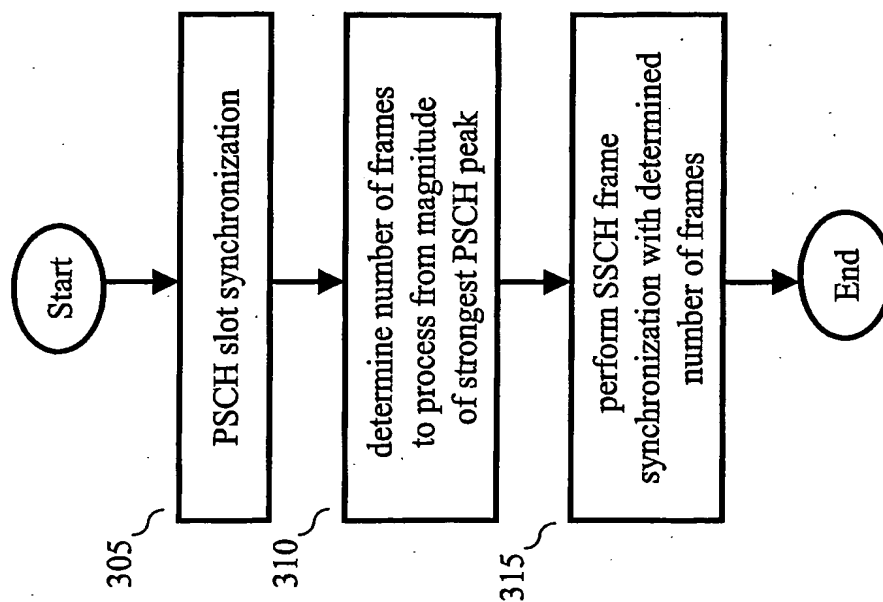


FIG. 5

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<u>correlation peak values</u>	<u>number of frames (N)</u>
k_1	1
k_2	2
\bullet \bullet \bullet	\bullet \bullet \bullet
k_j	10

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FIG. 6

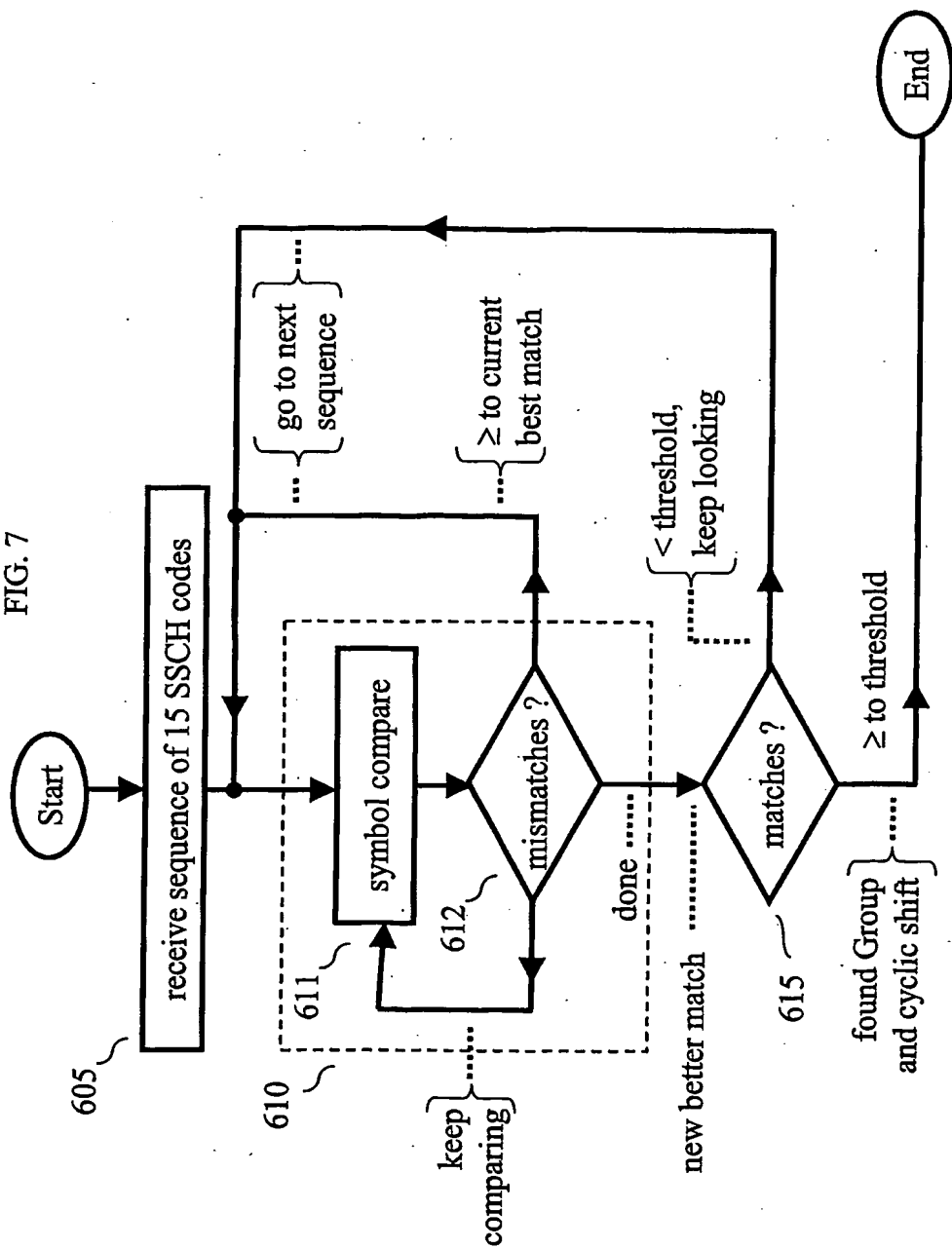
```

// determine code group and frame offset
err = 100000;
// initially set error to large value
// compare buffer against all possible code groups
for (i=0; i<64; i++)
{
    // compare against all 15 possible shifts of code
    for (k=0; k<15; k++)
    {
        current_err = 0;    // reset to zero
        for (j=0; j<15; j++)
        {
            current_err += abs(peak_idx_buff[j] - code_groups[i][(j+k) % 15]);
        }
        // check if closer than previous comparison
        if (current_err < err)
        {
            err = current_err;    // set new error value for comparison
            code_group = i;    // current estimate of scrambling code group
            offset = k;    // current estimate of offset measured in slots
        }
    }
}

```

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FIG. 7



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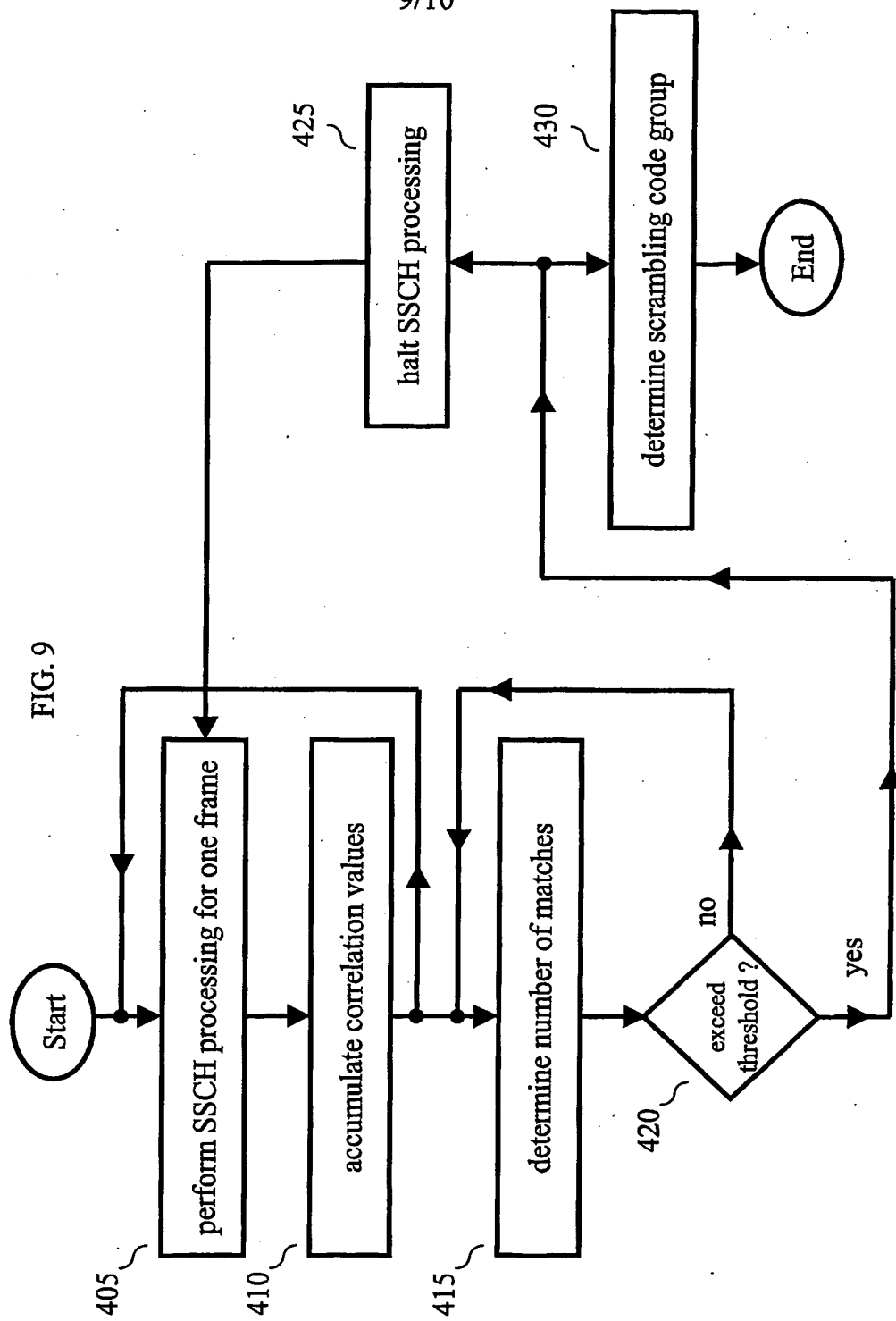
FIG. 8

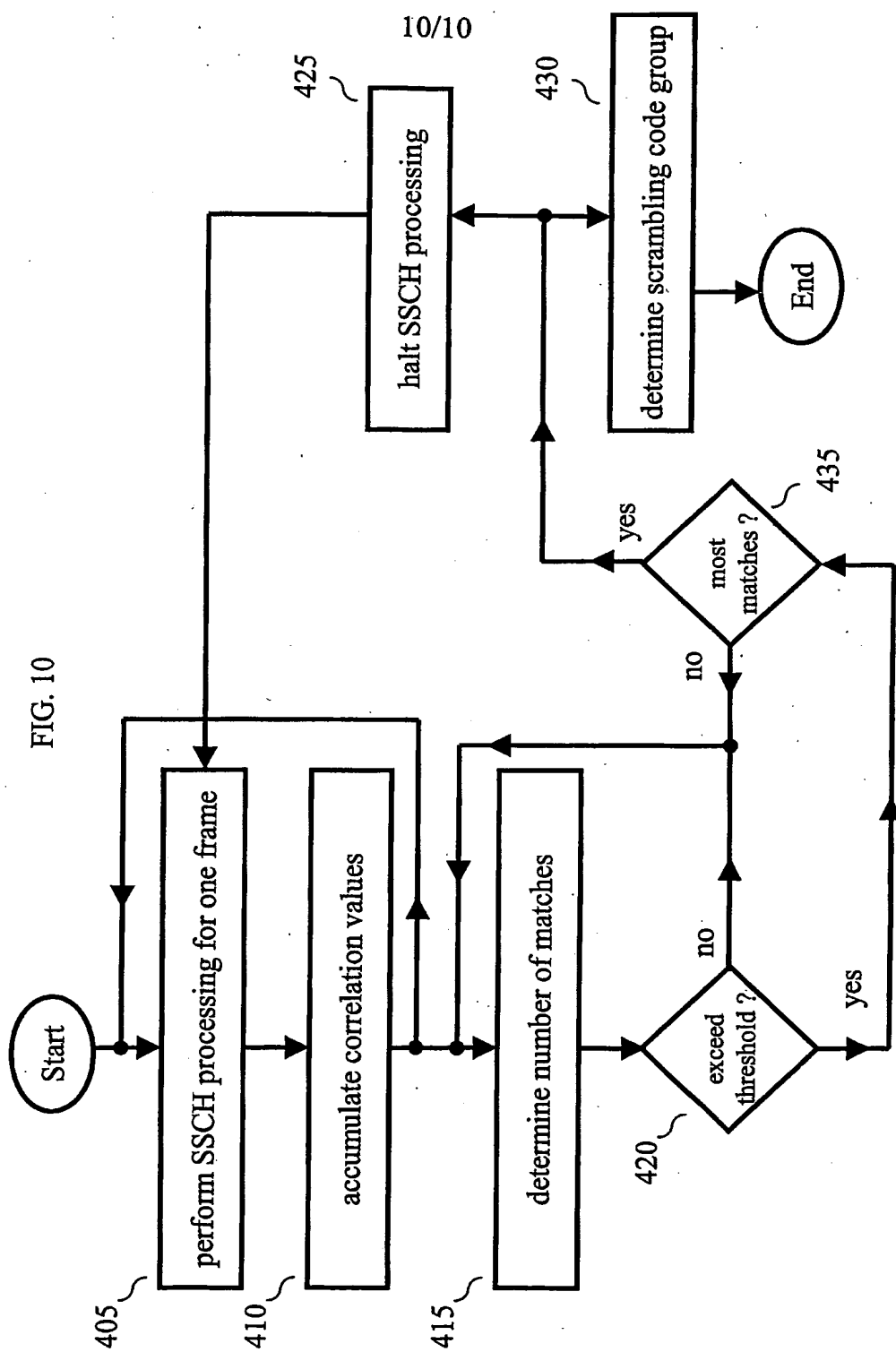
```

match = 0;
mismatch = 15;
for (i=0; i<64; i++)
    {for (k=0; k<15; k++)
        {current_mismatch = 0;
          for (j=0; j<15; j++)
              {if (peak_idx_buff[j] != code_groups[i][(j+k) % 15])
                  {
                      current_mismatch++;
                  }
                if (current_mismatch == mismatch) // same number of errors as current best match
                    {
                        j = 15;
                    }
                // force out of FOR loop
            }
            // check if perfect match found
            // current estimate of scrambling code group
            // current estimate of offset measured in slots
            if (current_mismatch == 0)
                {code_group = i;
                 offset = k;
                 j = 15; k = 15; i = 64;}
            else if (current_mismatch < mismatch)
                {mismatch = current_mismatch;
                 code_group = i;
                 offset = k;}
        }
    }

```


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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/24348

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04J 3/06; H04B 1/60, 7/216; H04Q 7/00
US CL : 370/513, 514, 331, 332, 342, 335; 455/500, 502, 9

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 370/513, 514, 331, 332, 342, 335; 455/500, 502, 9

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 2004/0022273 A1 (JO ET AL. 05 FEBRUARY 2004, PAGE 2, [0022] [0023] [0024].	1-20
X, P	US 2003/0236098 A1 (HAYOUNO) PAGE 2, [0039] [0040] [0041] [0042] [0043].	1-20
A	US 2003/0081571 A1 (HUR) 01 MAY 2003, PAGE 2, [0022].	1-20
A	US 2002/0064146 A1 (OKUYAMA) 30 MAY 2002, PAGE 3, [0044] [0049] [0050] [0051] [0052].	1-20

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

28 June 2004 (28.06.2004)

Date of mailing of the international search report

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